# CPSC-I-06-0013

### INTERAGENCY AGREEMENT

### BETWEEN THE

### U.S. CONSUMER PRODUCT SAFETY COMMISSION

### AND THE

#### NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

# I. INTRODUCTION

The U.S. Consumer Product Safety Commission, hereinafter referred to as CPSC, and the National Institute of Standards and Technology, hereinafter referred to as NIST, hereby agree that NIST shall provide the technical support for research re-examining the 16 C.F.R. Part 1632 test criteria for defining self-sustained smoldering. CPSC is aware that NIST is conducting a large number of 16 C.F.R. Part 1632 tests as part of a research project for the Sleep Product Safety Council (SPSC). The SPSC work will provide a useful context in which to examine self-sustained smoldering. This IAG will allow CPSC staff to carry out its obligations in areas of standards development for regulatory purposes, compliance and enforcement.

II. TITLE: Defining Criteria for Self-Sustained Smoldering in Mattresses and Mattress
Material Assemblies

# III. PURPOSE AND OBJECTIVES:

The purpose of this project is to: Re-examine the 16 C.F.R. Part 1632 test criteria for self-sustained smoldering in light of new technologies used to meet the new mandatory standard for open flame ignition of mattresses (16 C.F.R. Part 1633).

The objectives of this project are to: Development of a suggested test protocol and

recommended criteria for ascertaining the presence of self-sustained smoldering.

IV. BACKGROUND: The advent of the new test for resistance of mattresses to flaming ignition sources (16 C.F.R. 1633) has prompted the introduction of a variety of new flaming fire barriers into the near-surface layers of mattresses. Experience has shown that some of these yield technical (not actual) failures of the long-established test for cigarette ignition susceptibility in mattresses ((16 C.F.R. Part 1632). The failure criterion used in 16 C.F.R. 1632 (charring beyond any point two inches from the cigarette) proved adequate for mattress material assemblies used in the past but some newer materials that are effective as both flaming and smoldering barriers show damage exceeding this two inch limit (while posing no real life threat). Thus there is a need for a broader pass/fail criterion in the context of 16 C.F.R. 1632, one that is based more clearly on self-sustained smoldering.

### V. STATEMENT OF WORK

The following tasks are to be completed by NIST under this IAG:

- Task 1. Assess the relative feasibility of a spatial template (with a 2 inch or greater spread distance) and an IR thermometer as devices for following the evolution of smoldering in mattresses and mattress material assemblies. (6-8 months after start of SPSC project)
- Task 2. Examine and report the characteristics of smoldering during the test observation period to provide a technical basis for CPSC staff to assess the presence or absence of self-systained smoldering in mattresses and mattress material assemblies. (6-8 months after start of SPSC project)
- Task 3. Analyze whether the outcome of Tasks 1 and 2 yields a consistently shorter test time than is required for the original CFR 1632 pass/fail criterion. (6-8 months after start of SPSC project)
- Task 4. Complete a summary report on the above results with a suggested protocol for applying them to definitively determine when self-sustained smoldering is present. (12 months after start of SPSC project)
- VI. NIST FURNISHED MATERIALS/EQUIPMENT

NIST agrees to furnish all necessary personnel (except as noted in VII), equipment, materials, services, and facilities to complete the objectives listed in Section III. Test samples and the IR thermometer will be provided by the Sleep Products Safety Council.

### VII. CPSC FURNISHED MATERIALS/EQUIPMENT

CPSC staff will provide additional assistance as needed.

# VIII. CONFIDENTIALITY REQUIREMENTS

- All information reported to or otherwise obtained by CPSC or its agents under the Consumer Product Safety Act (CPSA) and provided to or shared with NIST, which contains or relates to a trade secret or other matter referred to in section 1905 of title 18, United States Code, or subject to section 552(b)(4) of the title 5, United States Code, shall be held in confidence by NIST personnel to the extent permitted by law.
- B. To the extent permitted by law, including the Freedom of Information Act, NIST agrees not to release the identity of any manufacturer of any product being tested or reviewed (example: ticking materials, foams, barrier fabrics) in conjunction with this IAG without the written consent of the CPSC
- All documents and other materials developed pursuant to this IAG shall have appropriate statements to indicate that the work was performed pursuant to the IAG by NIST; that the documents and other materials produced are the views of NIST; and that although the documents and other materials may have been developed in conjunction with CPSC staff, the documents and other materials do not necessarily represent the views of the Consumer Product Safety Commission.
- D. Any publications of or publicity pertaining to, the work performed under this Agreement shall include the following:

"This project was funded by CPSG. The content of this publication does not necessarily reflect the views of the Commission, nor does mention of trade names, commercial products, or organizations imply endorsement by the Commission or the USFA."

## IX. PERIOD OF PERFORMANCE

The period of performance shall begin on the effective date and shall not extend beyond 360 calendar days. This agreement may be modified by mutual consent of CPSC and NIST.

# X DELIVERY OR PERFORMANCE

All deliverables required under the terms and conditions of this IAG shall be provided to the CPSC, regardless of the various sources of funding. The following items shall be performed or delivered in accordance with the following schedule:

DELIVERY ITEM		QUANTITY	PERFORMANCE
A.	Quarterly progress reports to include, but not limited to: project status, costs incurred for quarter just ended, problems encountered or anticipated and plans for the succeeding quarter.	1 copy	Within thirty (30) calendar days after the end of each quarter.
B.	A draft final report for review and comment	1 copy	No later than the end of 360 calendar day test period.
C.	A final technical report	12 copies	No later than the end of 360 calendar day test period.
D.	Representative photographs, graphs, and videos of the tests	2 copies	No later than the end of 360 calendar day test period.

# XI. DISAGREEMENTS

In the event that CPSC and NIST have a disagreement arising under this interagency agreement, the parties shall cooperatively seek to resolve the disagreement by themselves. If the disagreement cannot be resolved between them, the parties agree to seek the assistance of a third party in resolving the disagreement.

# XII. SCHEDULE OF TASK COST AND PERFORMANCE

CPSC agrees to allow NIST to make adjustments as needed in the distribution of resources, as long as the total cost of the project is not increased and the project objectives are all met.

TASK DESCRIPTION OF TASK EST. COST EST. TIME FOR PER TASK EACH TASK

Task 1. Assess the relative feasibility of \$2,500.00 1 week a spatial template(with a 2 inch or greater spread distance) and an IR thermometer as devices for following the evolution of smoldering in mattresses and mattress material assemblies.

(6-8 months after start of SPSC project)

Task 2. Examine and report \$2,500.00 1 week the characteristics of smoldering during the test observation period to provide a technical basis for CPSC staff to assess the presence or absence of self-sustained smoldering in mattresses and mattress material assemblies.

(6-8 months after start of SPSC project)

Task 3 Analyze whether the outcome of Tasks \$2,500,00 1 week 1 and 2 yields a consistently shorter test time than is required for the original CFR 1632 pass/fail criterion.

(6-8 months after start of SPSC project)

Task 4. Complete a summary report on the above results \$2.500,00 I week with a suggested protocol for applying them to definitively determine when self-sustained smoldering is present.

(12 months after start of SPSC project)

# XIII, LIAISON OFFICERS

# A. NIST PROJECT OFFICER

Thomas J. Ohlemiller National Institute of Standards and Technology Building and Fire Research Laboratory Polymers Building, Building 245 Gaithersburg, MD 20899-8642 Phone: (301) 975-6481

### B. CPSC PROJECT OFFICER

Patricia K. Adair
U.S. Consumer Product Safety Commission
Directorate for Engineering Sciences
4330 East West Highway, Suite 611
Bethesda, MD 20814
Phone: (301) 504-7536

# C. CPSC FINANCIAL OFFICER

Consumer Product Safety Commission Directorate for Administration Accounting Operations Room 522 Washington, D.C. 20207

AGENCY PAYMENT OFFICER: Ms. Deborah Peebles Hodge Telephone (301) 504-7130

# XIV. COST AND TRANSFER OF FUNDS

The total estimated cost for this IAG is estimated at \$10K, provided with CPSC FY-06 funds.

# XV. FUNDING AND ACCOUNTING DATA

The transfer of funds shall be from CPSC to MIST through the On-Line Payment Collection (OPAC) system using the following accounting data:

# Transfer From:

#### **CPSC**

06 PS EXFM 4400 21022 253A DUNS # 069287522 ALC 61-00-0001 TIN 520978750 US Treas. 6160100

Page 6 of 7

To:

NIST

13-06-0001 13X4650

NIST Taxpayer ID Number: 530-20-5706

XVL AUTHORITY

Section 27(g) of the Consumer Product Safety Act, (15 U.S.C. 2076(g)),

Section 29(d) of the Consumer Product Safety Act, (15 U.S.C. 2078(d))

#### XVII. FASA COMPLIANCE

As the servicing agency, NIST agrees to act in full compliance with section 1074 of the Federal Acquisition Streamlining Act (FASA) of 1994, entitled "Economy Act Purchases."

Approved and Accepted for National Institute of Standards and Technology Approved and Accepted for Consumer Product Safety Commission.

BY:

John Quick

Acting Chief, Finance Div.

DATE:

TITLE:

BY:

TITLE:

DATE:

Page 7 of 7